

### Abstract

A method for measuring partial discharges in windings of electrical devices comprised by the following steps: Applying voltages having high frequency components to the winding of the electrical device, detecting partial discharge signals by means of a tuned VHF and/or UHF electromagnetic sensor located close to the electrical device and evaluating the detected sensor signals by means of electrical hardware or software. Further, a VHF and/or UHF electromagnetic sensor for measuring partial discharges in windings of electrical devices is described wherein an antenna made of a coaxial cable is provided as electromagnetic sensor. The present invention provides an improved measuring method and sensor device, which avoid the drawbacks of the prior art. The improved measuring method provides more detailed information about the status of the insulation system and clear short-circuits during the testing are not necessary any more. The proposed sensor provides a surprisingly simple and inexpensive solution.

[Fig. 1]